

FORM U-1 MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS
As required by the Provisions of the ASME Code Rules

1. Manufactured by <u>DOWNINGTOWN IRON WORKS DIVISION, Pressed Steel Tank Company</u> at <u>Downingtown, Pa. 19335</u>	
2. Manufactured for <u>E.I. DuPont DeNemours & Co., Inc., Wilmington, Del. (Dest. Gibbstown, N.J.)</u> <small>Name and address of Purchaser</small>	
3. Type <u>Horiz.</u> Kind Heat Exchanger Vessel No. <u>(58139)</u> (<u> </u>) Natl. Bd. No. <u>58139</u> Yr. Built <u>1964</u> <small>(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfrs. Serial) (State & State No.)</small>	
Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.	
4. SHELL: Matl. <u>SA-240, Gr. 304L</u> T.S. <u>70,000</u> Nom. Thick. <u>1</u> In. Cor. Allow. <u>0</u> In. Diam. <u>3</u> Ft. <u>2</u> In. Length <u>20</u> Ft. <u>0</u> In. <small>(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)</small>	
5. SEAMS: Long <u>WDB</u> H.T. <u>Yes</u> X.R. <u>304L Spot</u> Sectioned <u>No</u> Efficiency <u>304L 85%</u> <small>(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)</small>	
Girth <u>WDB</u> H.T. <u>Yes</u> X.R. <u>304L Spot</u> Sectioned <u>No</u> No. of Courses <u>6</u>	
6. HEADS: (a) Material <u>See Line 10</u> T.S. <u> </u> (b) Material <u> </u> T.S. <u> </u> <small>Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)</small>	
(a) <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Convex & Concave</u>	
(b) <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Convex & Concave</u>	
If removable, bolts used <u> </u> Other fastening <u> </u> <small>(Material, Spec. No. T.S., Size, Number) (Describe or Attach Sketch)</small>	
7. STAYBOLTS: <u> </u> If hollow <u> </u> Attachment <u> </u> Pitch <u> </u> X <u> </u> Diam. <u> </u> <small>(Material) (Size of Hole) (Threaded, Welded) (Horiz.) (Vert.) (Nominal)</small>	
8. JACKET CLOSURE: <u> </u> <small>(Describe as ogee & weld, bar, etc. If bar, give dimension. If bolted, describe or sketch)</small>	
9. Constructed for max. <u> </u> Min. temp. (when <u> </u> {Hydrostatic} Test allowable working press. <u>100</u> psi. at max. temp. <u>100</u> °F less than -20°) °F <u> </u> Press <u>150</u> psi.	
Items 10 and 11 to be completed for tube sections.	
10. TUBE SHEETS: Stationary. Material <u>SA-240 Tp-304</u> Diam. <u>40 1/2</u> In. Thickness <u>2-1/8</u> In. Attachment <u>Welded</u> <small>(Kind & Spec. No.) (Subject to Pressure)</small>	
* Floating. Material: <u> </u> Diam. <u> </u> In. Thickness <u> </u> In. Attachment <u> </u> <small>(Kind & Spec. No.)</small>	
11. TUBES: Material <u>SA-268, Gr.-430</u> O.D. <u>1</u> in. Thickness <u>12</u> BWG Number <u>67 1/2</u> Type <u>(Straight XXXXX)</u>	
Items 12-15 incl. to be completed for inner chambers of jacketed vessels, or channels of heat exchangers.	
12 SHELL: Material <u> </u> T.S. <u> </u> Nominal Thickness <u> </u> In. Corrosion Allowance <u> </u> In. Diam. <u> </u> Ft. <u> </u> In. Length <u> </u> Ft. <u> </u> In. <small>(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)</small>	
13. SEAMS: Long <u> </u> H.T. <u> </u> X.R. <u> </u> Sectioned <u> </u> Efficiency <u> </u> % <small>(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)</small>	
Girth <u> </u> H.T. <u> </u> X.R. <u> </u> Sectioned <u> </u> No. of courses <u> </u>	
14. HEADS: (a) Material <u> </u> T.S. <u> </u> (b) Material <u> </u> T.S. <u> </u> (c) Material <u> </u> T.S. <u> </u> <small>Location Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure (Convex or Concave)</small>	
(a) Top, bottom, ends <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Convex & Concave</u>	
(b) Channel <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Convex & Concave</u>	
(c) Floating <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Convex & Concave</u>	
If removable, bolts used (a) <u> </u> (b) <u> </u> <small>(Material Spec. No. T.S., Size, Number)</small>	
(c) <u> </u> Other fastening <u> </u> <small>(Describe or attach sketch)</small>	
15. Constructed for max. <u> </u> Min. temp. (when <u> </u> {Hydrostatic} Test allowable working press. <u>125</u> psi. at max. temp. <u>700</u> °F less than -20°) °F <u> </u> Press. <u>236</u> psi.	
Items below to be completed for all vessels where applicable	
16. SAFETY VALVE OUTLETS: Number <u> </u> Size <u> </u> Location <u> </u>	
17. NOZZLES: Number Diam. or Size Type Material Thickness Location Reinforce. Matl. How Attached	
Shell in <u>2</u> <u>12"</u> <u>Flanged</u> <u>SA-181, Gr. I</u> <u>Per Code</u> <u>- - -</u> <u>Welded</u>	
Shell out <u>2</u> <u>12"</u> <u>Flanged</u> <u>SA-181, Gr. I</u> <u>Per Code</u> <u>- - -</u> <u>Welded</u>	
Tubes in <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Welded</u>	
Tubes out <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u>Welded</u>	
18. INSPECTION per UG-46(f)(5) Manholes, No. <u> </u> Size <u> </u> Location <u> </u>	
OPENINGS: Handholes, No. <u> </u> Size <u> </u> Location <u> </u>	
Threaded, No. <u>12, 4, 2</u> Size <u>3/4, 1, 1 1/2</u> Location <u> </u>	
19. SUPPORTS: Skirt <u>No</u> Lugs <u> </u> Legs <u>4</u> Other <u> </u> Attached <u>Shell Welded</u> <small>(Yes or No) (Number) (Number) (Describe) (Where & How)</small>	
20. REMARKS: <u>Heat Exchanger (less bonnets) "Contents Unknown". Not designed nor constructed for Lethal Service.</u>	
Dwg. No. <u>A-2005</u> Cu. P.O. <u>HR-66425</u> D.I.W. Order No. <u>64H60</u> <small>(Brief description of the vessel, as Air Tank, After Cooler, Jacketed Cooler, etc. State contents of each part.) (Over)</small>	

FORM U-1 (back)

Vessel shell equipped with (1) one expansion joint fabricated from (2) two flanged and flued heads, SA-240 Tp.304L; MAT'L: 70,000 T.S.: 48" O.D. x 3/16" thk.

DuPont Order #HR-66425, Dupont Item # FA-EM 115, MFR's. Order #64H60

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Unfired Pressure Vessels.

Date June 29, 19 64 Signed Downingtown Iron Works Division
Pressed Steel Tank Company
(Manufacturer)

By Robert F. Jones
Robert F. Jones

Certificate of Authorization Expires #174 12/31/64

*Grade 2 Titanium Material Per Case 1258-3 O.D. - 1", Thk. 16 BWG., No - 5
Straight

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY DOWNINGTOWN IRON WORKS DIVISION, Pressed Steel Tank Co., at Downingtown, Pa.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of PENNSYLVANIA and employed by THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY of HARTFORD, CONN.

have inspected the pressure vessel described in this manufacturer's data report on AUG 4 1964 19 64, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date AUG 4 1964 19 64

H. J. Roulson
Inspectors Signature

Commissions National Board No. 1328
Nat'l Board or State and No.

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of _____ and employed by _____ of _____

have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. The described vessel was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ 19 _____

Inspectors Signature

Commissions _____
Nat'l Board or State and No.